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Two aids used in the identification of potential dropouts are examined. The Mink Scale (a teacher-rated scale) is based on classification of social, psychological, and educational forces related to dropout proneness: (1) academic ability and performance, (2) negative identification with education, (3) family and socioeconomic status, and (4) student-personal. The Smith Inventory consists of a self-report inventory of 38 items completed by the student. Results are presented of an investigation of differences between Appalachian school dropouts and non-dropouts utilizing these instruments. Items are identified that differentiate between these 2 groups in Appalachia. The 2 scales are contained in the appendix of the document. (SW)

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PREFACE

The alarming rate at which students withdraw from the junior and senior high schools is of great concern to a society whose future welfare depends in great part on the education of all its citizens. The late John F. Kennedy recognized the need for the optimal educational development of all members of society in his 1963 State of the Union message to Congress. He stated:

> The future of any country which is dependent on the will and wisdom of its citizens is damaged and irreparably damaged, whenever any of its children is not educated to the fullest extent of his capacity from grade school through graduate school.

In West Virginia there has been a paucity of attempts to identify and help those students who are likely to discontinue their education before completion of high school. It would seem that a first step toward reduction of the problem would involve identification of those students who are "dropout prone." Recognizing the identification of "dropout prone" students as a necessary first step, two scales were constructed for the purpose of investigating differences between dropouts and non-dropouts in West Virginia. The purpose of this bulletin is to report the results of the investigation of dropouts and non-dropouts on the two scales. The research was conducted by the Division of Clinical Studies, College of Human Resources and Education of West Virginia University.

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DROPOUT PRONENESS IN APPALACHIA

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Research Series 3

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INTRODUCTION

Only a little over half of our nation's youth stays in school long enough to graduate. In West Virginia, the percentage of youth who do not finish high school is higher than for most states. Of the West Virginia public school students entering the ninth grade in 1961, only 61.8 per cent graduated from high school four years later. In the percentage of ninth graders who continued in school and graduated, West Virginia ranked forty-first in the nation in 1964. (State Rankings, 1965.)

Various results have been reported from research seeking to explain the school dropout. There are contradictory results as to the importance of intelligence or scholastic ability as a contributing factor. Some studies have rejected the idea that all dropouts are slow learners or functional illiterates (Rombouts, 1963; Bowman and Mathews, 1960; NEA Research Division, 1963). Poor reading and language development have been reported as characteristics of most dropouts (Penty, 1956; Findley, 1964). The value system is thought to be a differentiating factor between dropouts and those who remain in school.

One study reported that almost any method of measuring the extent the family valued education would differentiate dropouts from stay-ins (Illinois Dropout Study, 1962). Considered to be related to the value system of the individual, the poor social and educational environment in which the student lives is seen as a contributing factor in school dropouts (Skodak 1949; Tuel, 1966; Hollingshead, 1941).

Attempting to identify the "real" reasons for dropping out of school is a complex problem. It is likely that reasons vary from individual to individual and stem from varied conditions in the life of the student. However, while the conditions generating dropout proneness among youth are hardly known, it is known that many social, psychological, and educational forces are related to dropout proneness.

Mink, after an extensive review of the literature, classified these forces into roughly four primary groups: (1) Academic Ability and Performance, (2) Negative Identification with Education, (3) Family and Socio-Economic Status, and (4) Personal (Mink, 1966). This classification was used as the basis for the construction of a scale to investigate differences in school dropouts and stay-ins in the Appalachian region junior high schools.

Chapter one presents the results of the investigation of differences between Appalachian school dropouts and non-dropouts on the Mink Scale. The instrument was constructed by Dr. Oscar G. Mink, Director of the Division of Clinical Studies, College of Human Resources and Education of West Virginia University.

Chapter two presents the results of an investigation of differences between dropouts and non-dropouts on the Smith Inventory. This instrument was constructed by John E. Smith, doctoral candidate in Counseling and Guidance, Division of Clinical Studies, College of Human Resources and Education of West Virginia University.

I

THE MINK SCALE

An Aid in the Identification of Potential Dropouts With a Teacher Rated Scale

The Mink Scale (see Appendix A) aids in the identification of potential dropouts through the use of a scale to be completed by school personnel. The Scale is divided into four sections: Academic Ability and Performance (8 items); Negative Identification with Education (11 items); Socio-Economic Status (14 items); and Student-Personal (12 items). The sections of the Scale roughly represent the social, psychological and/or educational forces related to dropout proneness. The items in the Scale have been found, in previous studies, to differentiate dropouts from non-dropouts and were selected after an extensive review of the dropout literature.

Information to complete the items on the Scale is to be obtained from the school record, acquaintance of the rater with the subject and/or by obtaining information from an informant, i.e., someone well-acquainted with the subject, such as a teacher.

Some limitations of the Scale were encountered in the tryout study and should be noted. The record system of some schools is such that information is not available to complete the majority of the items on the Scale. Also, some schools may not, for various reasons, have school personnel available to complete the items where a fairly good acquaintance with the subjects is needed.

For example, if one wishes to identify potential dropouts in grade seven, and most of the seventh graders attended sixth grade in feeder schools, it may be quite difficult to obtain information concerning the students beyond that available in the records. In such a case as that just described, it is recommended that another approach to the identification of potential dropouts be considered. This bulletin presents one other method of identification. Chapter II presents the results of a self-report inventory administered to a group of dropouts and non-dropouts.

The Mink Scale items were put to test during the 1966-67 school year in a comparative study of dropouts and non-dropouts conducted by the Division of Clinical Studies, College of Human Resources and Education of West Virginia University. A description of the subjects, methods and procedures of the study and detailed results follow.

The subjects in the study were 189 students (dropouts) who were in the seventh grade in 1961 or later and 262 current high school seniors (non-dropouts) who were also in the seventh grade at that time. Of the dropouts, 101 were males and 88 were females. TABLE 1 shows the distribution of dropouts by grade dropped. The non-dropouts were composed of 131 males and 131 females. The sample was taken from five school systems in five Appalachian counties, four in West Virginia and one in Pennsylvania.

The forty-five item Mink Scale was constructed from items found in the literature to differentiate between dropouts and non-dropouts. The scale was completed for each subject in the study by the school counselor in three counties and by a research assistant in two counties where counselors were not available. School records were the primary source of data for completion of the items. However, school personnel well acquainted with the subjects and/or their families also gave information on many items. In the three counties where the school counselors completed the scales, the counselors were well acquainted with many of the dropouts. However, the research assistant had to rely entirely on the school records and school personnel acquainted with the subjects.

TABLE 1. MINK SCALE
Distribution of Dropouts by Grade Dropped

Grade Dropped	Males		Females		Total Dropouts	
	No.	Per Cent*	No.	Per Cent*	No.	Per Cent*
Seventh	9	10.6	6	7.6	15	9.1
Eighth	16	18.8	7	8.9	23	14.1
Ninth	23	27.1	15	19.0	38	23.2
Tenth	21	24.7	25	31.6	46	28.0
Eleventh	10	11.8	17	21.5	27	16.5
Twelfth	6	7.0	9	11.4	15	9.1
Unknown	16		9		25	
Total	101		88		189	

*Base excludes "unknown".

It should be noted that there were missing data on many items due to lack of information in school records or unavailability of school personnel well enough acquainted with the subject to provide information necessary for completion of an item. Therefore, scales were completed for each subject as fully as available information would allow.

All information was recorded retrospectively in terms of information relating to seventh grade or as near to seventh grade as possible, i.e. intelligence quotient obtained in grade seven, num-

ber of days absent in grade seven, etc. It was thought that the seventh grade is the level at which the data for the two groups should be collected and items identified which are valid for differentiating between dropouts and non-dropouts.

The data were analyzed by chi-square tests computed on each item for (1) total dropouts and total non-dropouts, (2) male dropouts and male non-dropouts, and (3) female dropouts and female non-dropouts. TABLE 2 shows the scale items, distribution of responses and computed chi squares.

TABLE 2. MINK SCALE
Items, Distribution of Responses, and Computed Chi-Squares

ITEM	RESPONSES					X^{2*}	df	P
Academic Ability and Performance								
1. How many years older or younger is he than the other students in his grade?	−1 ☐	0 ☐	1 ☐	2 ☐	3 or more ☐			
Total Dropouts	6	85	53	26	16	77.71	4	<.001
Total Stayins	8	214	30	8	0			
Male Dropouts	2	40	26	20	11	41.81	2	<.001
Male Stayins	2	107	18	4	0			
Female Dropouts	4	45	26	7	5	20.71	2	<.001
Female Stayins	6	107	12	4	0			
2. Has he been retained in grade?	No ☐	1 Year ☐	2 Years ☐	3 Years ☐	4 or more ☐			
Total Dropouts	86	55	29	14	2	78.46	3	<.001
Total Stayins	221	32	6	2	0			
Male Dropouts	33	31	23	10	2	45.99	2	<.001
Male Stayins	101	25	4	1	0			
Female Dropouts	53	23	7	4	0	25.28	1	<.001
Female Stayins	120	7	2	1	0			
3. What is his current grade point average?	A ☐	B ☐	C ☐	D ☐	F ☐			
Total Dropouts	1	18	72	66	22	110.49	4	<.001
Total Stayins	18	100	116	22	2			
Male Dropouts	0	1	34	46	16	85.74	3	<.001
Male Stayins	4	49	64	11	2			
Female Dropouts	1	17	38	20	6	21.08	3	<.001
Female Stayins	14	51	52	11	0			
4. Is he presently failing subjects?	No ☐	1 ☐	2 ☐	3 ☐	4 or more ☐			
Total Dropouts	111	15	11	16	20	55.89	4	<.001
Total Stayins	229	14	4	4	1			
Male Dropouts	53	9	5	12	13	32.30	4	<.001
Male Stayins	110	9	3	2	1			
Female Dropouts	58	6	6	4	7	3.28	1	> .05
Female Stayins	119	5	1	2	0			

*Cell Collapsed if expected N in cell is less than 5.

MINK SCALE (Continued)

ITEM	RESPONSES					X^{2*}	df	P
5. Is his reading level below his grade level?	No ☐	1 Year ☐	2 Years ☐	3 Years ☐	4 or more ☐			
Total Dropouts	68	24	41	16	5	69.59	3	<.001
Total Stayins	189	34	15	0	0			
Male Dropouts	24	14	22	14	5	52.13	3	<.001
Male Stayins	92	15	9	0	0			
Female Dropouts	44	11	18	2	0	16.73	2	<.001
Female Dropouts	97	19	6	0	0			
6. What is his IQ score?	Below 70 ☐	70-79 ☐	80-89 ☐	90-100 ☐	Above 100 ☐			
Total Dropouts	5	25	43	44	32	76.69	3	<.001
Total Stayins	0	7	21	60	154			
Male Dropouts	4	21	21	19	12	41.39	3	<.001
Male Stayins	0	5	8	36	69			
Female Dropouts	1	4	22	25	20	28.64	2	<.001
Female Stayins	0	2	13	24	85			
7. Special projects completed in or outside of school? (i.e., 4-H, Scouts)	0 ☐	1 ☐	2 ☐	3 ☐	4 or more ☐			
Total Dropouts	101	35	3	2	0	53.30	4	<.001
Total Stayins	74	97	17	15	14			
Male Dropouts	48	20	2	0	0	12.56	1	<.001
Male Stayins	44	54	8	6	6			
Female Dropouts	53	15	1	2	0	25.74	1	<.001
Female Stayins	30	43	9	9	8			
8. Special hobbies?	0 ☐	1 ☐	2 ☐	3 ☐	4 or more ☐			
Total Dropouts	66	15	4	5	1	55.56	4	<.001
Total Stayins	32	48	32	18	11			
Male Dropouts	32	9	0	1	1	36.28	3	<.001
Male Stayins	15	24	17	13	5			
Female Dropouts	34	6	4	4	0	22.22	2	<.001
Female Stayins	17	24	15	5	6			
Negative Identification with Education								
1. Is he usually happy in school?				Yes ☐	No ☐			
Total Dropouts				75	69	87.59	1	<.001
Total Stayins				96	11			
Male Dropouts				30	46	59.38	1	<.001
Male Stayins				94	7			
Female Dropouts				44	23	29.10	1	<.001
Female Stayins				102	4			
2. Does he participate in extracurricular activities such as sports, band, clubs?				Yes ☐	No ☐			
Total Dropouts				46	117	69.89	1	<.001
Total Stayins				152	60			
Male Dropouts				21	68	40.00	1	<.001
Male Stayins				72	32			
Female Dropouts				25	49	29.20	1	<.001
Female Stayins				80	28			

MINK SCALE (Continued)

ITEM	RESPONSES			X²*	df	P
3. Is he absent 20 or more days a year? (Pro-rate)		Yes ☐	No ☐			
	Total Dropouts	73	114	90.83	1	<.001
	Total Stayins	9	248			
	Male Dropouts	46	55	59.12	1	<.001
	Male Stayins	4	123			
	Female Dropouts	27	59	31.13	1	<.001
	Female Stayins	5	125			
4. Does he seem to be liked by his schoolmates?		Yes ☐	No ☐			
	Ttoal Dropouts	113	35	36.54	1	<.001
	Total Stayins	202	6			
	Male Dropouts	51	24	31.12	1	<.001
	Male Stayins	100	2			
	Female Dropouts	61	11	7.35	1	< .01
	Female Stayins	102	4			
5. Does he attend formal school functions? (dances, parties, special clubs, etc.)		Yes ☐	No ☐			
	Total Dropouts	55	115	66.93	1	<.001
	Ttoal Stayins	183	69			
	Male Dropouts	28	59	29.13	1	<.001
	Male Stayins	89	39			
	Female Dropouts	27	35	37.45	1	<.001
	Female Stayins	94	30			
6. Does he claim little or no interest in school-work?		Yes ☐	No ☐			
	Total Dropouts	97	74	59.20	1	<.001
	Total Stayins	51	200			
	Male Dropouts	64	24	45.28	1	<.001
	Male Stayins	33	93			
	Female Dropouts	33	49	17.81	1	<.001
	Female Stayins	18	107			
7. Does he resent school controls?		Yes ☐	No ☐			
	Total Dropouts	68	80	37.15	1	<.001
	Total Stayins	33	171			
	Male Dropouts	48	28	31.67	1	<.001
	Male Stayins	21	78			
	Female Dropouts	20	51	7.98	1	< .01
	Female Stayings	12	93			
8. Do the teachers like or show an interest in him?		Yes ☐	No ☐			
	Total Dropouts	91	64	36.27	1	<.001
	Total Stayins	172	26			
	Male Dropouts	40	44	27.47	1	<.001
	Male Stayins	81	15			
	Female Dropouts	50	21	9.79	1	< .01
	Female Stayins	91	11			

MINK SCALE (Continued)

ITEM	RESPONSES			X²*	df	P
9. Is overageness apparent?		Yes ☐	No ☐			
	Total Dropouts	20	126	11.99	1	< .01
	Total Stayins	7	191			
	Male Dropouts	14	66	8.17	1	< .01
	Male Stayins	4	90			
	Female Dropouts	6	59	1.40	1	> .05
	Female Staying	3	101			
10. Does he like to read?		Yes ☐	No ☐			
	Total Dropouts	45	125	18.49	1	<.001
	Total Stayins	120	134			
	Male Dropouts	13	74	16.43	1	<.001
	Male Stayins	53	77			
	Female Dropouts	32	50	4.45	1	< .05
	Female Stayins	67	57			
11. Does he seem to particularly like one teacher or teachers?		Yes ☐	No ☐			
	Total Dropouts	72	96	17.02	1	<.001
	Total Stayins	153	88			
	Male Dropouts	31	55	7.51	1	< .01
	Male Stayins	68	55			
	Female Dropouts	40	41	10.55	1	<.001
	Female Stayins	85	33			

MINK SCALE — Responses for Dropouts and Stayins

ITEM	RESPONSES			X²*	df	P
Family and Socio-Economic Status						
1. Is father's occupation unskilled or semi-skilled?		Yes ☐	No ☐			
	Total Dropouts	144	16			
	Total Stayins	175	74	22.07	1	<.001
	Male Dropouts	80	2			
	Male Stayins	87	37	24.14	1	<.001
	Female Dropouts	64	14			
	Female Stayins	88	37	3.47	1	> .05
2. Is the parents' attitude apathetic or negative toward completing his high school education?		Yes ☐	No ☐			
	Total Dropouts	77	85			
	Total Stayins	40	200	44.65	1	<.001
	Male Dropouts	45	39			
	Male Stayins	21	102	30.62	1	<.001
	Female Dropouts	32	46			
	Female Stayins	19	98	14.89	1	<.001

MINK SCALE (Continued)

ITEM	RESPONSES					X^{2*}	df	P
3. Education completed by mother:	Post H.S. ☐	H.S. Grad. ☐	8-11 ☐	5-8 ☐	less than 5 ☐			
Total Dropouts	3	34	41	76	9			
Total Stayins	24	100	82	31	0	71.71	3	<.001
Male Dropouts	2	15	19	43	4			
Male Stayins	8	53	43	21	0	31.77	3	<.001
Female Dropouts	1	19	22	32	5			
Female Stayins	16	47	39	10	0	34.84	3	<.001
4. Education completed by father:	Post H.S. ☐	H.S. Grad. ☐	8-11 ☐	5-8 ☐	less than 5 ☐			
Total Dropouts	2	30	37	81	9			
Total Stayins	20	100	70	41	1	64.97	3	<.001
Male Dropouts	1	11	19	46	4			
Male Stayins	9	51	38	23	1	35.82	2	<.001
Female Dropouts	1	19	18	34	5			
Female Stayins	11	49	32	18	0	20.25	3	<.001
5. Do parents frequently point out his weaknesses?				Yes ☐	No ☐			
Total Dropouts				22	71			
Total Stayins				23	99	1.01	1	> .05
Male Dropouts				14	37			
Male Stayins				10	48	1.66	1	> .05
Female Dropouts				8	34			
Female Stayins				13	51	.03	1	> .05
6. Is his home more than 5 miles from school?				Yes ☐	No ☐			
Total Dropouts				84	96			
Total Stayins				102	144	1.14	1	> .05
Male Dropouts				48	48			
Male Stayins				51	70	1.33	1	> .05
Female Dropouts				36	48			
Female Stayins				51	74	.09	1	> .05
7. Does anyone besides his parents and siblings live in his home?				Yes ☐	No ☐			
Total Dropouts				9	94			
Total Stayins				15	132	.15	1	> .05
Male Dropouts				5	52			
Male Stayins				8	64	.20	1	> .05
Female Dropouts				4	41			
Female Stayins				7	68	.01	1	> .05
8. Number of brothers and/or sisters who did not finish high school:	0 ☐	1 ☐	2 ☐	3 ☐	4 or more ☐			
Total Dropouts	32	8	9	2	8	10.62	2	< .01
Total Stayins	79	7	5	4	5	10.62	2	< .01
Male Dropouts	14	5	4	2	4			
Male Stayins	34	5	1	2	1	2.62	1	> .05
Female Dropouts	18	3	5	0	4			
Female Stayins	45	2	4	2	4	1.88	1	> .05

MINK SCALE (Continued)

ITEM	RESPONSES					X^{2}*	df	P
9. How many brothers does he have?	0 ☐	1 ☐	2 ☐	3 ☐	4 or more ☐			
Total Dropouts	31	27	26	11	8			
Total Stayins	52	58	37	24	16	1.86	4	> .05
Male Dropouts	17	11	15	6	5			
Male Stayins	23	28	17	16	8	4.05	4	< .05
Female Dropouts	14	16	12	5	3			
Female Stayins	29	30	20	8	8	.32	3	> .05
10. How many sisters does he have?	0 ☐	1 ☐	2 ☐	3 ☐	4 or more ☐			
Total Dropouts	24	30	26	9	5	7.73	3	> .05
Total Stayins								
Male Dropouts	12	20	15	4	3			
Male Stayins	42	28	14	8	3	8.23	3	< .05
Female Dropouts	12	10	11	6	2			
Female Stayins	29	37	16	8	2	3.59	3	> .05
11. Are his parents of northern European extraction?				Yes ☐	No ☐			
Total Dropouts				120	16			
Total Stayins				139	25	.76	1	> .05
Male Dropouts				73	7			
Male Stayins				68	10	.68	1	> .05
Female Dropouts				47	9			
Female Stayins				71	15	.05	1	> .05
12. What is the estimated family income:	☐		☐		☐			
Total Dropouts	52		67		5			
Total Stayins	19		110		37	45.03	2	<.001
Male Dropouts	31		37		2			
Male Stayins	11		54		13	20.39	2	<.001
Female Dropouts	21		29		3			
Female Stayins	8		56		24	23.50	2	<.001
13. Are parents interested in school policies and practices?				Yes ☐	No ☐			
Total Dropouts				35	111			
Total Stayins				116	38	79.06	1	<.001
Male Dropouts				13	70			
Male Stayins				56	22	51.74	1	<.001
Female Dropouts				22	41			
Female Stayins				60	16	27.60	1	<.001
14. Does he reside with his biological parents?				Yes ☐	No ☐			
Total Dropouts				141	18			
Total Stayins				194	16	1.48	1	> .05
Male Dropouts				76	10			
Male Stayins				90	8	.62	1	> .05
Female Dropouts				65	8			
Female Stayins				104	8	.81	1	> .05

MINK SCALE (Continued)

ITEM	RESPONSES					X^{2}*	df	P
Personal								
1. Does the student appear to lack the basic financial requirements for school?				Yes ☐	No ☐			
	Total Dropouts			62	101			
	Total Stayins			7	158	18.86	1	<.001
	Male Dropouts			11	58			
	Male Stayins			4	75	4.79	1	< .05
	Female Dropouts			14	43			
	Female Stayins			3	83	14.53	1	<.001
2. How many hours per week does the student work? (Either in the home such as farm chores or outside the home.)		less than 5 ☐	5-10 ☐	10-15 ☐	16-20 ☐	over 20 ☐		
	Total Dropouts	113	40	11	2	0		
	Total Stayins	160	57	20	2	3	.416	2	> .05
	Male Dropouts	54	25	7	0	0		
	Male Stayins	82	27	9	2	0	1.13	2	> .05
	Female Dropouts	59	15	3	2	0		
	Female Stayins	78	30	11	0	2	3.36	2	>. 05
3. Is the student frequently ill or easily fatigued?					Yes ☐	No ☐		
	Total Dropouts				27	122		
	Total Stayins				24	179	2.75	1	> .05
	Male Dropouts				13	64		
	Male Stayins				10	87	1.62	1	> .05
	Female Dropouts				13	58		
	Female Stayins				14	92	.86	1	> .05
4. Is there an obvious physical handicap?					Yes ☐	No ☐		
	Total Dropouts				10	144		
	Total Stayins				13	168	.06	1	> .05
	Male Dropouts				8	78		
	Male Stayins				7	80	.09	1	> .05
	Female Dropouts				2	66		
	Female Stayins				6	88	.05	1	> .05
5. Does the student feel sorry for himself?			Seldom ☐	Sometimes ☐	Frequently ☐			
	Total Dropouts		53	66	9			
	Total Stayins		121	36	1	34.51	2	<.001
	Male Dropouts		23	41	7			
	Male Stayins		56	21	0	19.45	1	<.001
	Female Dropouts		29	25	2			
	Female Stayins		65	16	1	11.65	1	<.001

MINK SCALE (Continued)

ITEM	RESPONSES					X^{2}*	df	P
6. Does he feel that standards are set too high for him?			Seldom ☐	Sometimes ☐	Frequently ☐			
	Total Dropouts		46	66	16			
	Total Stayins		110	47	1	39.98	2	<.001
	Male Dropouts		15	42	13			
	Male Stayins		49	28	0	33.61	1	<.001
	Female Dropouts		30	24	3			
	Female Stayins		61	19	1	6.34	1	< .05
7. How many schools has he attended?		0 ☐	1 ☐	2 ☐	3 ☐	5 or more ☐			
	Total Dropouts	40	54	43	8	4			
	Total Stayins	50	74	30	3	3	8.36	3	< .05
	Male Dropouts	22	29	24	5	4			
	Male Stayins	28	37	10	1	1	7.75	2	< .05
	Female Dropouts	18	25	19	3	0			
	Female Stayins	22	37	20	2	2	.71	2	> .05
8. Is the student too small or too big for his age?					Yes ☐	No ☐			
	Total Dropouts				12	118			
	Total Stayins				13	146	.10	1	> .05
	Male Dropouts				9	60			
	Male Stayins				5	73	1.87	1	> .05
	Female Dropouts				3	57			
	Female Stayins				8	73	.54	1	> .05
9. Does he have a discipline record at school?			Seldom ☐	Sometimes ☐	Frequently ☐			
	Total Dropouts		90	50	16			
	Total Stayins		183	13	3	57.95	2	<.001
	Male Dropouts		38	37	14			
	Male Stayins		83	10	1	43.41	2	<.001
	Female Dropouts		52	13	2			
	Female Stayins		100	3	2	13.48	1	<.001
10. Do teachers say he is irritating in class?			Seldom ☐	Sometimes ☐	Frequently ☐			
	Total Dropouts		92	50	9			
	Total Stayins		147	16	2	34.07	2	<.001
	Male Dropouts		40	39	8			
	Male Stayins		66	12	0	21.09	1	<.001
	Female Propouts		52	11	1			
	Female Stayins		81	4	2	6.47	1	< .05

MINK SCALE (Continued)

ITEM	RESPONSES				X²*	df	P
11. Has he ever purposely damaged school property?		Seldom ☐	Sometimes ☐	Frequently ☐			
	Total Dropouts	137	11	1			
	Total Stayins	191	3	0	7.41	1	< .05
	Male Dropouts	76	8	1			
	Male Stayins	89	2	0	2.27	1	> .05
	Female Dropouts	61	3	0			
	Female Stayins	102	1	0	.06	1	> .05
12. Would you describe his best friend as planning to quit school?		Yes ☐	No ☐				
	Total Dropouts	67	59				
	Total Stayins	5	154		93.19	1	<.001
	Male Dropouts	45	23				
	Male Stayins	2	75		66.63	1	<.001
	Female Dropouts	21	36				
	Female Stayins	3	79		25.92	1	<.001

DISCUSSION OF RESULTS

Academic Ability and Performance. All of the items in this section differentiated between dropouts and non-dropouts with one exception. There was no significant difference between the number of courses being failed by female dropouts and female non-dropouts in the seventh grade. However, that female dropouts exhibited poorer academic performance than female non-dropouts can be attested to by the significant differences found in number of years retained, grade point average and reading level. The highly significant differences found for items in the Academic Ability and Performance section indicate that low academic performance is an important variable in identifying dropout prone students.

Negative Identification with Education. Only one item in this section failed to turn up a significant difference between dropout and non-dropout groups. The item, apparentness of overageness, did not differentiate between female dropouts and non-dropouts. The commonly he'd belief that students who eventually discontinue do not have positive feelings about school, and that these feelings are reflected by their behavior, was supported by the results of this study.

The fact that dropout groups partcipated less in extracurricular activities and formal school functions probably reflects a feeling

of not really being a part of the school community. Excessive absenteeism also reflects a desire on the part of the dropout to stay away from a situation that is viewed negatively. It is also interesting to note that dropouts were seen as being liked by their schoolmates less often than non-dropouts.

When one considers the results of the sections Academic Ability and Performance and Negative Identification with Education together, certain questions arise. Does poor academic performance lead to negative feelings and subsequent negative behavior in the school situation? Or, does negative identification with education cause minimal efforts and subsequent poor academic performance? Also, what part does the ability factor (dropouts were significantly lower on intelligence test scores) and the school's provisions for students of low ability play? These questions cannot be answered from the results of this study.

Family and Socio-Economic Status. It is interesting to note that the two items which might be considered to reflect the parent's attitudes and values toward education significantly differentiated dropout and non-dropout groups. These items are whether parents' attitude is negative or apathetic toward education and parent's interest in school policies and practices. It is known that children introject many of the attitudes and values of their parents.

If parents do not value an education and show an interest in school practices, their children will show similar behavior. The lower educational level of parents, lower family income level, and lower occupational level of fathers (except for females) support the idea that dropouts as a group come from a lower socio-economic class than non-dropouts. No support was found for the commonly held beliefs that dropouts live greater distances from school than non-dropouts and more often do not live with their biological parents.

Personal. The Personal section yielded several interesting results. Dropouts compared to non-dropouts were more often seen as feeling sorry for themselves, going without the basic financial requirements for school, having a discipline record, feeling that standards were set too high for them, being irritating to teachers, and having a best friend who planned to quit school. The fact that more dropouts were seen as not having the basic financial requirements for school is related to the lower socio-economic level of dropouts.

That dropouts were seen as more often feeling sorry for them-

selves may be related to several factors; lower ability, lower socio-economic level, lower academic performance, and perhaps a general feeling of alienation from the school situation. The finding that dropouts had a discipline record more often than non-dropouts is related to the fact that teachers saw the dropout as more irritating in class and that dropouts as a group (but not for males and females when total group was broken down) more often purposely damaged school property.

Undesirable conduct on the part of many dropouts may be a reflection of their lack of positive identification with school personnel and the school environment in general. The finding that dropouts more often tha non-dropouts have a best friend who is planning to quit school indicates that dropouts may segregate themselves, perhaps because of the common characteristics they possess.

Items which did not significantly differentiate any of the groups were number of hours per week the student worked, frequency of illness of the subject, presence of an obvious physical handicap and whether the student was too big or too small for his age. Four of the five school districts from which subjects were drawn are located in rural communities and offer little opportunity for after school employment.

SUMMARY AND CONCLUSIONS

Of the forty-five items surveyed, only eight failed to differentiate the total group of dropouts from non-dropouts. Of the thirty-seven items that showed a significant difference between the total dropouts and non-dropouts, thirty-one also differentiated significantly between male dropouts and male non-dropouts, and female dropouts and female non-dropouts.

The results of this study show that, for the most part, items differentiating between dropouts and non-dropouts in other studies also differentiated between dropouts and non-dropouts in Appalachia.

The profile of the dropout prone student emerging from this study is a student probably of lower than average measured intelligence, performing poorly in academic tasks, somewhat negative about the school situation as shown by little participation in school activities and often becoming a discipline problem, and coming from a family that does not value education highly and has a history of low educational attainment. Although items that differentiated

for males or females but not for both can be identified from Table 2, the basic profile seems to fit both males and females.

All items in the sections Academic Ability and Performance and Negative Identification with Education differentiated between dropouts and non-dropouts. However, it is likely that dropout characteristics emerging from these two sections are an outgrowth of attitudes, values, and beliefs learned in the family.

In other words, it is probable that the home and family of the dropout prone student set the stage for poor academic performance and negative identification with education. It is also probable that the school, in many cases, is poorly equipped to combat the roots of dropout proneness that many students already have established when they enter school.

Students who do not find school to be a meaningful experience often show little participation in school activities, either academic or social. When the school is not able to make experiences meaningful, the student desires to remove himself from the situation and may be termed a "force-out."

Most schools recognize that many of their youth are dropouts or eventually will drop out; however, little is done directly to alleviate the problem. Perhaps the complexity of the problem discourages the local school system from trying to discover what makes a dropout and what to do about it.

However complex the problem may be, ignoring it is to abdicate a responsibility. The school is obligated to take action with the objective of remedying the dropout problem. The highly individual nature of each potential dropout's problem persistently brings us back to the responsibility of his individual school. The problem needs to be attacked intelligently in the school, where the potential dropout is, where he can be observed, and where he can be helped.

It is the concern of this report to present items that have differentiated between dropouts and non-dropouts in Appalachia. It is the hope of the authors that the results of this study will be one step in the direction of better identificaion of those students who are dropout prone. It is the further hope of the authors that constructive approaches will be made by school systems in an attempt to combat the dropout problem.

II

THE SMITH INVENTORY

An Aid in the Identification of Potential Dropouts Through the Use of a Self-Report Inventory

The Smith Inventory (see Appendix B) was constructed after it was recognized that the Mink Scale had limitations in some schools. The Mink Scale requires adequate school records and school personnel well-acquainted with the students to be surveyed for dropout proneness. These conditions are not always met in some schools. The Smith Inventory consists of 38 items to be completed by the student.

Recognizing the value of the extensive review of literature from which The Mink Scale items were developed, The Smith Inventory includes many of these items stated in such a manner as to elicit a response from the student himself. The first 34 items consist of questions which can be answered by the student checking one of from three to five alternatives. The last four items of the Inventory attempt to assess the attitude of the student by requiring him to make value judgments on four important educational issues. A positive and negative direction regarding dropout proneness for the alternative responses is obvious.

In order to test the ability of The Smith Inventory items to differentiate between dropouts and non-dropouts, a study was conducted by the Division of Clinical Studies, College of Human Resources and Education of West Virginia University. The subjects consisted of 123 dropouts (61 males and 62 females) and 207 non-dropouts (114 males and 93 females). The sample was taken from the counties of Harrison, Monongalia and Wayne in West Virginia and Fayette in Pennsylvania. TABLE 3 shows the distribution of dropouts by grade dropped. The non-dropouts were high school seniors at the time of the study.

TABLE 3. SMITH INVENTORY
Distribution of Dropouts by Grade Dropped

Grade Dropped	Males		Females		Total Dropouts	
	No.	Per Cent*	No.	Per Cent*	No.	Per Cent*
Seventh	3	5.5	1	2.2	4	4.0
Eighth	13	23.6	3	6.7	16	16.0
Ninth	17	30.9	13	28.9	30	30.0
Tenth	15	27.3	16	35.6	31	31.0
Eleventh	6	10.9	10	22.2	16	16.0
Twelfth	1	1.8	2	4.4	3	3.0
Unknown	6		17		23	
Total	61		62		123	

*Base excludes "unknown".

During the 1966-67 school year, names and addresses of 100 dropouts over the past six years were secured from school officials in each of the four counties in the study. The Smith Inventory was mailed to the 400 students and 114 returned usable Inventories. A follow-up letter urging non-respondents to return the Inventory brought in only a few additional Inventories. The low rate of response (28.5%) is characteristic of studies with school dropouts. The seniors were administered the Inventories in their respective high schools. Because it was thought that the seventh grade is the level at which the Inventory will be most useful to school personnel, all subjects were instructed to complete the items as they would have completed them when they were in the seventh grade. These directions were given orally to the seniors and in the written instructions to the dropouts.

The Inventory items were analyzed by chi-square tests computed on each item for (1) total dropouts and total non-dropouts, (2) male dropouts and male non-dropouts. (3) female dropouts and female non-dropouts. TABLE 4 presents the items, distribution of responses and computed chi-squares.

TABLE 4. SMITH INVENTORY
Items, Distribution of Responses, and Computed Chi-Squares

ITEM	RESPONSES				X^2*	df	P
1. How old were you in the seventh grade?	13 or under	14-15		over 15			
Total Dropouts	67	36		11	38.68	1	< .01
Total Non-Dropouts	188	17		2			
Male Dropouts	27	22		7	31.71	1	<.001
Male Non-Dropouts	103	9		2			
Female Dropouts	41	14		4	7.80	1	< .01
Female Non-Dropouts	85	8		0			
2. Were you failing any of your subjects in the seventh grade?	none	one	two	three or more			
Total Dropouts	66	17	15	16	46.60	3	< .01
Total Non-Dropouts	179	21	6	1			
Male Dropouts	25	8	9	14	17.38	2	< .01
Male Non-Dropouts	90	19	4	1			
Female Dropouts	42	9	6	2	5.84	1	< .05
Female Non-Dropouts	89	2	2	0			
3. How much time did you spend reading a day?	very much	much	little	very little			
Total Dropouts	32	34	22	24	1.31	3	> .50
Total Non-Dropouts	52	75	40	39			
Male Dropouts	14	14	10	16	2.52	3	> .05
Male Non-Dropouts	27	42	21	24			
Female Dropouts	19	20	12	8	.53	3	> .05
Female Non-Dropouts	25	33	19	15			

*Cell dropped if expected N in cell is less than 5.

SMITH INVENTORY (Continued)

ITEM	RESPONSES				X^{2*}	df	P
4. How well did you like arithmetic?	very much	much	little	very little			
Total Dropouts	42	29	29	15	3.16	3	> .05
Total Non-Dropouts	68	54	43	42			
Male Dropouts	19	16	14	8	1.19	3	> .05
Male Non-Dropouts	41	36	20	17			
Female Dropouts	24	13	15	7	5.46	3	> .05
Female Non-Dropouts							
5. Have you ever failed a grade before the seventh grade?	none	one	two or more				
Total Dropouts	52	44	16		47.40	2	< .01
Total Non-Dropouts	170	33	4				
Male Dropouts	17	24	13		38.76	2	< .01
Male Non-Dropouts	89	22	3				
Female Dropouts	36	20	3		11.81	1	< .01
Female Non-Dropouts	81	11	1				
6. Did you think you were getting enough out of your school?	yes	usually	seldom	no			
Total Dropouts	31	32	13	37	14.55	3	< .01
Total Non-Dropouts	88	69	12	38			
Male Dropouts	10	12	6	28	15.0	3	< .01
Male Non-Dropouts	47	32	8	27			
Female Dropouts	21	21	7	9	2.16	3	> .05
Female Non-Dropouts	41	37	4	11			
7. Did you like your school work?	yes	usually	seldom	no			
Total Dropouts	35	46	10	25	5.28	3	> .05
Total Non-Dropouts	57	92	29	28			
	17	14	8	18	5.74	3	> .05
Male Non-Dropouts	30	46	16	21			
Female Dropouts	19	32	2	7	5.09	3	> .05
Female Non-Dropouts	27	46	13	7			
8. How many days have you missed classes dur the seventh grade?	0-9	10-19	20 or more				
Total Dropouts	58	35	21		34.74	2	< .01
Total Non-Dropouts	163	37	6				
Male Dropouts	32	14	11		9.57	2	< .01
Male Non-Dropouts	94	16	4				
Female Dropouts	26	22	10		11.78	1	< .01
Female Non-Dropouts	69	21	2				
9. Did you like other students in your class?	almost all	most of them	a few of them	almost no one			
Total Dropouts	64	36	13	3	5.89	2	> .05
Total Non-Dropouts	122	74	9	2			
Male Dropouts	30	19	5	3	.99	1	> .05
Male Non-Dropouts	66	42	4	2			
Female Dropouts	35	17	8	0	3.16	1	> .05
Female Non-Dropouts	56	32	5	0			

SMITH INVENTORY (Continued)

ITEM	RESPONSES				X^2*	df	P
10. How did you like your school?	very much	much	little	very little			
Total Dropouts	24	49	25	18	4.32	3	> .05
Total Non-Dropouts	35	99	54	19			
Male Dropouts	8	18	17	14	7.48	3	> .05
Male Non-Dropouts	21	49	33	11			
Female Dropouts	16	32	8	4	4.32	2	> .05
Female Non-Dropouts	14	50	21	8			
11. Did you attend school ball games, dances, or parties?	never	seldom	often	very often			
Total Dropouts	23	32	37	26	9.82	3	< .05
Total Non-Dropouts	23	50	57	77			
Male Dropouts	12	12	19	14	5.37	3	> .05
Male Non-Dropouts	13	31	29	41			
Female Dropouts	11	21	18	12	8.46	3	< .05
Female Non-Dropouts	10	19	28	36			
12. How do you think your teachers liked you?	very much	much	little	very little			
Total Dropouts	18	52	29	18	11.19	3	< .05
Total Non-Dropouts	31	122	41	12			
Male Dropouts	6	24	13	14	10.75	3	< .05
Male Non-Dropouts	18	60	28	8			
Female Dropouts	12	28	17	4	7.10	2	< .05
Female Non-Dropouts	13	62	13	4			
13. How well did you like your teachers?	very much	much	little	very little			
Total Dropouts	37	48	20	12	17.23	3	< .01
Total Non-Dropouts	33	126	37	10			
Male Dropouts	12	23	13	8	4.50	3	> .05
Male Non-Dropouts	19	64	22	8			
Female Dropouts	25	26	7	4	14.06		< .01
Female Non-Dropouts	14	62	15	2			
14. How did you get along with other students in your class?	very well	well	not very well	not at all			
Total Dropouts	50	57	8	1	2.15	2	> .05
Total Non-Dropouts	102	95	8	0			
Male Dropouts	28	22	6	1	1.47	1	> .05
Male Non-Dropouts	58	51	4	0			
Female Dropouts	23	35	2	0	1.51	1	> .05
Female Non-Dropouts	44	44	4	0			
15. How many friends did you have in school?	more than 10	5-10	less than 5				
Total Dropouts	102	11	4		.27	1	> .05
Total Non-Dropouts	184	19	4				
Male Dropouts	52	4	1		.03	1	> .05
Male Non-Dropouts	102	9	3				
Female Dropouts	51	7	3		.11	1	> .05
Female Non-Dropouts	82	10	1				

SMITH INVENTORY (Continued)

ITEM	RESPONSES			X^{2*}	df	P
16. To how many school teams or clubs did you belong?	none	1-2	3 or more			
Total Dropouts	62	50	6	13.63	2	< .01
Total Non-Dropouts	82	85	40			
Male Dropouts	28	25	4	4.0	2	> .05
Male Non-Dropouts	44	50	20			
Female Dropouts	35	25	2	10.75	2	< .01
Female Non-Dropouts	38	35	20			
17. How far did your father go in school?	12th grade or higher	8th to 11th grade	7th grade or less			
Total Dropouts	31	49	38	49.92	2	< .01
Total Non-Dropouts	117	73	16			
Male Dropouts	13	24	20	23.58	2	< .01
Male Non-Dropouts	64	39	11			
Female Dropouts	19	25	18	19.68	2	< .01
Female Non-Dropouts	53	34	5			
18. How far did your mother go in school?	12th grade or higher	8th to 11th grade	7th grade or less			
Total Dropouts	38	54	25	39.52	2	< .01
Total Non-Dropouts	138	57	12			
Male Dropouts	21	28	7	7.43	2	< .05
Male Dropouts	68	36	10			
Female Dropouts	18	26	18	39.44	2	< .01
Female Non-Dropouts	70	21	2			
19. Do you think your parents:	wanted you to finish high school	didn't care if you did or did not finish high school	did not believe that school would help you			
Total Dropouts	108	6	4	2.29	1	> .05
Total Non-Dropouts	202	2	0			
Male Dropouts	51	3	3	.36	1	> .05
Male Non-Dropouts	10	1	0			
Female Dropouts	58	3	1	.11	1	> .05
Female Non-Dropouts	92	1	0			
20. In your school work, did your parents:	encourage you	discourage you				
Total Dropouts	110	8		1.89	1	> .05
Total Non-Dropouts	200	4				
Male Dropouts	52	5		.74	1	> .05
Male Non-Dropouts	107	4				
Female Dropouts	59	3		.09	1	> .05
Female Non-Dropouts	93	0				
21. Did you live with:	both mother and father	either your mother or father	neither			
Total Dropouts	100	12	6	2.34	1	> .05
Total Non-Dropouts	186	15	3			
Male Dropouts	47	5	5	.49	1	> .05
Male Non-Dropouts	102	7	2			
Female Dropouts	54	7	1	.32	1	> .05
Female Non-Dropouts	84	8	1			

SMITH INVENTORY (Continued)

ITEM	RESPONSES					X^{2*}	df	P
22. About how many people are there in your town?	20,000 or more	5,000-19,000	500-4,999	20-499	less than 20			
Total Dropouts	18	32	19	36	5	10.77	4	< .05
Total Non-Dropouts	52	47	46	41	17			
Male Dropouts	8	13	11	17	4	5.21	4	> .05
Male Non-Dropouts	25	27	23	20	15			
Female Dropouts	10	19	9	19	1	6.61	3	> .05
Female Non-Dropouts	27	20	23	21	2			
23. How far from your home was your school located?	1-5 miles		6-15 miles		16 or more			
Total Dropouts	87		22		6	3.92	1	< .05
Total Non-Dropouts	177		24		1			
Male Dropouts	42		9		5	1.60	1	> .05
Male Non-Dropouts	98		12		1			
Female Dropouts	46		13		1	2.02	1	> .05
Female Non-Dropouts	79		12		0			
24. Did you work outside of school?	Yes				No			
Total Dropouts	31				83	.00	1	> .05
Total Non-Dropouts	55				149			
Male Dropouts	20				35	1.14	1	> .05
Male Non-Dropouts	50				61			
Female Dropouts	11				49	6.54	1	< .50
Female Non-Dropouts	5				88			
25. How many brothers and sisters do you have?	none		1, 2, or 3		4 or more			
Total Dropouts	8		41		70	24.27	2	< .01
Total Non-Dropouts	21		120		63			
Male Dropouts	5		18		35	13.97	2	< .01
Male Non-Dropouts	15		62		34			
Female Dropouts	3		23		36	11.02	2	< .01
Female Non-Dropouts	6		58		29			
26. Did you feed tired?	never	seldom	often	very often				
Total Dropouts	21	59	25	13		11.07	3	< .05
Total Non-Dropouts	20	135	39	10				
Male Dropouts	12	26	10	9		5.90	3	> .05
Male Non-Dropouts	15	69	19	8				
Female Dropouts	9	33	16	4		5.57	2	> .05
Female Non-Dropouts	5	66	20	2				
27. Did you have any trouble with the other students or teachers?	never	seldom	often	very often				
Total Dropouts	40	61	10	7		4.91	3	> .05
Total Non-Dropouts	66	125	8	5				
Male Dropouts	17	28	8	4		2.82	2	> .05
Male Non-Dropouts	30	72	6	3				
Female Dropouts	24	33	2	3		.10	1	> .05
Female Non-Dropouts	36	53	2	2				

SMITH INVENTORY (Continued)

ITEM	RESPONSES				X²	df	P
28. Have you ever been sick?	never	seldom	very often	often			
Total Dropouts	11	77	17	14	6.74	3	> .05
Total Non-Dropouts	15	148	31	9			
Male Dropouts	6	41	6	5	.77	3	> .05
Male Non-Dropouts	7	83	14	6			
Female Dropouts	5	36	12	9	3.28	2	> .05
Female Non-Dropouts	8	65	17	3			
29. Were the teachers fair to you?	very often	often	seldom	never			
Total Dropouts	36	57	15	10	5.21	3	> .05
Total Non-Dropouts	83	94	15	12			
Male Dropouts	16	22	11	8	6.24	3	> .05
Male Non-Dropouts	45	47	10	9			
Female Dropouts	20	36	4	2			
Female Non-Dropouts	38	47	5	3	1.16	1	> .05
30. Was it important to you that you graduate from high school?		Yes		No			
Total Dropouts		82		36	39.78	1	< .10
Total Non-Dropouts		193		10			
Male Dropouts		37		20	33.11	1	< .01
Male Non-Dropouts		107		3			
Female Dropouts		46		16	9.84	1	< .01
Female Non-Dropouts		86		7			
31. Did you think that you would be able to graduate from high school?	yes	prob-ably	doubt-ful	no			
Total Dropouts	47	41	18	12	72.41	3	< .01
Total Non-Dropouts	174	20	6	4			
Male Dropouts	18	20	10	9	30.85	3	< .01
Male Non-Dropouts	91	14	3	3			
Female Dropouts	30	21	8	3	26.54	1	< .01
Female Non-Dropouts	83	6	3	1			
32. Did you do your homework?	very often	often	seldom	never			
Total Dropouts	53	47	16	5	.98	2	> .05
Total Non-Dropouts	103	73	25	2			
Male Dropouts	12	30	13	5	6.62	2	< .05
Male Non-Dropouts	45	41	22	2			
Female Dropouts	41	18	3	0	.42	1	> .05
Female Non-Dropouts	58	32	3	0			
33. Did you belong to any organization such as 4-H, Boy Scouts, Church group?	none	1-4	5 or more				
Total Dropouts	67	53	1		23.04	1	< .01
Total Non-Dropouts	58	143	0				
Male Dropouts	33	27	0		5.89	1	< .05
Male Non-Dropouts	39	70	2				
Female Dropouts	35	26	1		21.64	1	< .01
Female Non-Dropouts	19	73	1				

SMITH INVENTORY (Continued)

ITEM	RESPONSES						X^2*	df	P
34. Have you ever completed a project or partipated in any of these groups?				Yes		No			
Total Dropouts				54		67	24.22	1	< .01
Total Non-Dropouts				147		57			
Male Dropouts				26		34	9.46	1	< .01
Male Non-Dropouts				75		36			
Female Dropouts				28		34	16.91	1	< .01
Female Non-Dropouts				72		21			
Attitudes Toward Education:									
35. A man can earn more by working four years than by going to high school.	strong disagreement	moderate disagreement	slight disagreement	slight agreement	moderate agreement	strong agreement			.....
Total Dropouts	57	14	21	7	8	14	13.77	5	< .05
Total Non-Dropouts	117	28	24	18	11	6			
Male Dropouts	21	7	13	2	5	12	12.78	3	< .01
Male Non-Dropouts	65	11	15	11	5	2			
Female Dropouts	36	7	8	5	3	2	1.63	3	> .05
Female Non-Dropouts	52	17	9	7	6	4			
36. Most young people are getting too much education.	strong disagreement	moderate disagreement	slight disagreement	slight agreement	moderate agreement	strong agreement			
Total Dropouts	74	16	14	9	4	4	.08	3	> .05
Total Non-Dropouts	124	28	25	15	8	3			
Male Dropouts	38	8	6	3	3	3	.55	2	> .05
Male Non-Dropouts	71	11	13	6	5	2			
Female Dropouts	36	8	8	6	1	1	.61	3	> .05
Female Non-Dropouts	53	17	12	9	3	1			
37. Our schools encourage an individual to think for himself.	strong disagreement	moderate disagreement	slight disagreement	slight agreement	moderate agreement	strong agreement			
Total Dropouts	12	15	19	12	25	39	10.02	5	> .05
Total Non-Dropouts	21	12	21	20	68	62			
Male Dropouts	9	10	11	6	7	18	9.90	5	> .05
Male Non-Dropouts	15	7	11	11	28	37			
Female Dropouts	3	5	8	6	18	21	2.88	3	> .05
Female Non-Dropouts	6	5	10	9	40	25			
38. High school courses are too impractical.	strong disagreement	moderate disagreement	slight disagreement	slight agreement	moderate agreement	strong agreement			
Total Dropouts	31	29	29	12	8	10	8.27	5	> .05
Total Non-Dropouts	42	43	48	38	22	9			
Male Dropouts	17	15	13	4	5	5	6.65	4	> .05
Male Non-Dropouts	26	22	17	22	13	7			
Female Dropouts	14	14	16	8	3	5	1.91	4	> .5
Female Non-Dropouts	16	21	31	16	9	2			

DISCUSSION OF RESULTS

An analysis of the results reveals rather clearly that dropouts have a poorer academic record in seventh grade than non-dropouts. The dropouts surveyed reported they were failing more subjects and had been retained in school more years than non-dropouts. As a result of being retained more years in school, it was expected and found that students who eventually dropped out of school were older than their classmates who continued.

It is interesting and surprising to note that dropouts did not report liking arithmetic less than non-dropouts or spending less time reading. Although there were significant differences for total groups and males on the question, "did you think you were getting enough out of school?" there was no difference for females. In response to the question, "did you like your schoolwork?" dropouts did not indicate they disliked their schoolwork any more than non-dropouts. What is surprising is the fact that 30 per cent of the dropouts indicated "seldom" or "no" to the question, "did you like your schoolwork?" and 28 per cent of the non-dropouts so answered.

No differences were indicated between dropouts and non-dropouts in the number of friends they had or their liking of other students. However, all dropout groups thought teachers liked them less and the total dropout group and females indicated they liked teachers less when compared with the responses of non-dropouts. Male dropouts did not indicate they liked teachers less than male non-dropouts. Also, there were no differences between any of the groups to the question, "did you feel the teachers were fair to you?" Here again it is interesting to note that 21 per cent of the dropouts felt teachers were seldom or never fair to them and 13 per cent of the non-dropouts felt teachers were seldom or never fair. In general, it seems that dropouts perceived their relationship with other students to be somewhat better than their relationships with teachers.

Male dropouts appeared to enter more into school activities than female dropouts. No differences were reported between male dropouts and male non-dropouts on the number of school teams or clubs they belonged to or their attendance at school ball games, dances or parties. Differences were found for these items for total dropouts and female dropouts.

Although father's and mother's education was lower for all dropout groups than non-dropout groups, no support was gained

for differences in parental encouragement or expectations between dropouts and non-dropouts. However, dropouts indicated it was not as important to them that they graduate from high school. Also, dropouts indicated more often than non-dropouts that they did not feel they would be able to graduate from high school. The reasons for not being able to graduate were not assessed.

The size of town lived in and distance from school differentiated total groups but not the sub-groups of males and females. Contrary to the belief that more dropouts come from broken homes, no difference was found between the number of dropouts and non-dropouts who lived with both parents, one parent or neither parent. Dropouts did, however, have more brothers and sisters.

Only one of the items attempting to get at the attitudes toward education produced significant differences. Total dropouts and males were more in agreement than non-dropouts with the statement, "a man can earn more by working four years than by going to high school." No differences were found between the groups in degree of agreement or disagreement to the statements: "most young people are getting too much education", "our schools encourage an individual to think for himself," and "high school courses are too impractical."

SUMMARY AND CONCLUSIONS

Many items on the inventory did not differentiate dropouts and non-dropouts as expected. Thirty-eight items were used; only twenty were significant for the total groups of dropouts and non-dropouts, fifteen for males and sixteen for females.

Certain limitations are recognized in the method of this study but, due to practical considerations, could not be avoided. A longitudinal approach rather than the retrospective one used (asking students to respond as they would have in the seventh grade) would be desirable. However, a longitudinal study offers little for the immediate action which is sorely needed for this problem. Data collection on a longitudinal basis is being planned. Another limitation is the collection of data from individuals after they have become members of the criterion groups, i.e., dropouts and non-dropouts. There is no assurance that responses are the same as they would have been prior to the subject becoming dropouts.

The study did reveal items that differentiated dropouts and non-dropouts on a retrospective basis and, if used, are expected to

be helpful in the identification of dropout prone students in the Appalachian junior high schools.

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APPENDIX A

THE MINK SCALE

NAME .....
(Last) (First) Middle)

SCHOOL .....

DIRECTIONS: Complete as many items for the subject as available information will permit. Refer to school records and school personnel acquainted with the subject for information to complete on item. Directions for completing individual items which are not self-explanatory can be found at the end of the scale.

PART I

Academic Ability and Performance

1. How many years older or younger is he than the other students in his grade? -1 ☐ 0 ☐ 1 ☐ 2 ☐ 3 or more ☐
2. Has he been retained in grade? No ☐ 1 yr. ☐ 2 yrs. ☐ 3 yrs. ☐ 4 or more ☐
3. What is his current grade point average? A ☐ B ☐ C ☐ D ☐ F ☐
4. Is he presently failing any subjects? No ☐ 1 ☐ 2 ☐ 3 ☐ 4 or more ☐
5. Is his reading level below his grade level? No ☐ 1 yr. ☐ 2 yrs. ☐ 3 yrs. ☐ 4 or more ☐
6. What is his IQ score? Below 70 ☐ 70-79 ☐ 80-89 ☐ 90-100 ☐ Above 100 ☐
7. Special projects completed in or outside of school? (i.e., 4-H, Scouts) 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 or more ☐

   Describe .....

   .....
8. Special hobbies? 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 or more ☐

   Specify .....

PART II

Negative Identification with Education

1. Is he usually happy in school? Yes ☐ No ☐

2. Does he participate in extracurricular activities such as sports, band, clubs? Yes ☐ No ☐

3. Is he absent 20 or more days a year? (pro-rate) Yes ☐ No ☐

4. Does he seem to be liked by his schoolmates? Yes ☐ No ☐

5. Does he attend formal school functions? (dances, parties, special clubs, etc.) Yes ☐ No ☐

6. Does he claim little or no interest in schoolwork? Yes ☐ No ☐

7. Does he resent school controls? Yes ☐ No ☐

8. Do the teachers like or show an interest in him? Yes ☐ No ☐

9. Is overageness apparent? Yes ☐ No ☐

10. Does he like to read? Yes ☐ No ☐

11. Does he seem to particularly like one teacher or teachers? Yes ☐ No ☐

PART III

Family and Socio-Economic Status

1. Is father's occupation unskilled or semi-skilled? Please list ..... Yes ☐ No ☐

2. Is the parents' attitude apathetic or negative toward completing his high school education? Yes ☐ No ☐

3. Education completed by mother: Post H.S. ☐ H.S. Grad. ☐ 8-11 ☐ 5-8 ☐ less than 5 ☐

4. Education completed by father: Post H.S. ☐ H.S. Grad. ☐ 8-11 ☐ 5-8 ☐ less than 5 ☐

5. Do parents frequently point out his weaknesses? Yes ☐ No ☐

6. Is his home more than 5 miles from school? Yes ☐ No ☐

7. Does anyone beside his parents and siblings live in his home? Yes ☐ No ☐

   Please list .....

   .....

8. Number of brothers and/or sisters who did not finish high school. 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 or more ☐

9. How many brothers does he have? 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 or more ☐

10. How many sisters does he have? 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 or more ☐

11. Are his parents of northern European extraction? Yes ☐ No ☐

12. What is the estimated family income: less than $3000 ☐ $3000-$8000 ☐ $8000 or more ☐

13. Are parents interested in school policies and practices? Yes ☐ No ☐

14. Does he reside with his biological parents? Yes ☐ No ☐

PART IV

Personal

1. Does the student appear to lack the basic financial requirements of school? Explain ..... Yes ☐ No ☐

.....

2. How many hours per week does the student work? (Either in the home such as farm chores or outside the home.) less than 5 ☐ 5-10 ☐ 10-15 ☐ 16-20 ☐ 20 ☐

3. Is the student frequently ill or easily fatigued? Yes ☐ No ☐

4. Is there an obvious physical handicap? Yes ☐ No ☐

5. Does the student feel sorry for himself? Seldom ☐ Sometimes ☐ Frequently ☐

6. Does he feel that standards are set too high for him? Seldom ☐ Sometimes ☐ Frequently ☐

7. How many schools has he attended? 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 or more ☐

8. Is the student too small or too big for his age? Yes ☐ No ☐

9. Does he have a discipline record at school? Seldom ☐ Sometimes ☐ Frequently ☐

10. Do teachers say he is irritating in class? Seldom ☐ Sometimes ☐ Frequently ☐

11. Has he ever purposely damaged school property? Seldom ☐ Sometimes ☐ Frequently ☐

12. Would you describe his best friend as planning to quit school? Yes ☐ No ☐

Directions for completion of items which are not self-explanatory.

Part 1—Item 8. Determine how many special hobbies such as playing golf, collecting stamps, etc. the student has engaged in over a fairly extensive period of time. Do not include short-term hobbies that are engaged in for brief periods of time and then dropped.

Part 2—Item 1. Determine if the student is happy in the school environment as much or more so than outside of the school environment.

Part 2—Item 3. Pro rate the absence rate for the year by considering the average number of absences per month to date and then consider the number of months of school remaining. If less than three months of school have passed, use the absence rate for the previous year.

Part 2—Item 4. Determine whether or not students generally like him by including him in formal and informal social activities.

Part 2—Item 6. Judge if the student, either by word or deed, indicates that school work is of little or no interest to him.

Part 2—Item 7. Determine if the student shows by his behavior that the rules necessary for conducting a school are ones that he resents or not.

Part 2—Item 8. Judge if the teachers seem to have at least average interest in the student or do they exhibit a dislike for him by such behavior as constant harassing or total neglect.

Part 2—Item 11. Determine if there is at least one teacher the student seems to like by such behavior as frequently visiting outside of formal class sessions, working harder for than other teachers, etc.

Part 3—Item 2. Determine if the parents never encourage educational activities by the student or if there is active discouragement.

Part 3—Item 5. Judge if the parents frequently downgrade the student by pointing out to him his shortcomings, actual or imagined.

Part 3—Item 13. Determine whether or not the parents show some evidence of interest in school policies and practices by attendance at school functions or encouragement of the student to continue and be active in the educational program.

Part 4—Item 1. This item should be checked "yes" if the student seems not to have money for books, paper, lunch, etc.

Part 4—Item 5. Determine whether or not the student is frequently depressed by his plight of not meeting up to others performance either socially or academically. Does he feel sorry for himself in such instances?

Part 4—Item 6. Judge whether or not the student feels that too much is expected of him in the school situation. Does he feel pushed to excel beyond his capabilities.

Part 4—Item 10. Determine if teachers frequently remark or complain that the student's behavior in class is irritating or upsetting to them and/or other class members.

APPENDIX B

THE SMITH INVENTORY

We are asking a few questions which will help us to know you better. Make a check in the block which best describes you. Before you start, print your name, school, and other requested information in the spaces indicated below.

My name is .....
(first) (last)
My school is (or was) .....
My birthday is .....
(month) (day) (year)
My weight is about ..... pounds.
My height is ..... foot ..... inches.

1. How old were you in the 7th grade?
   ..... 13 or under
   14-15
   ..... over 15

2. Were you failing any of your subjects in the 7th grade?
   ..... none
   ..... one
   ..... two
   ..... three or more

3. How much time did you spend reading a day?
   ..... very much
   ..... much
   ..... little
   ..... very little

4. How well did you like arithmetic?
   ..... very much
   ..... much
   ..... little
   ..... very little

5. Have you ever failed a grade before the 7th grade?
   ..... none
   ..... one
   ..... two or more

6. Did you think you were getting enough out of your school?
   ..... yes
   ..... usually
   ..... seldom
   ..... no

7. Did you like your school work?
   ..... yes
   ..... usually
   ..... seldom
   ..... no

8. How many days have you missed classes during the 7th grade?
   ..... 0-9 days
   ..... 10-19 days
   ..... 20 or more days

9. Did you like other students in your class?
   ..... almost all
   ..... most of them
   ..... a few of them
   ..... almost no one

10. How did you like your school?
   ..... very much
   ..... much
   ..... little
   ..... very little

11. Did you attend school ball games, dances or parties?
   ..... never
   ..... seldom
   ..... often
   ..... very often

12. How do you think your teachers liked you?
   ..... very much
   ..... much
   ..... little
   ..... very little

14. How did you get along with other students in your class?
   ..... very well
   ..... well
   ..... not very well
   ..... not at all

15. How many friends did you have in school?
..... more than 10
..... 5-10
..... less than 5

16. To how many school teams or clubs did you belong?
..... none
..... 1-2
..... 3 or more

17. How far did your father go in school?
..... 12th grade or higher
..... 8th to 11th grade
..... 7th grade or less

18. How far did your mother go in school?
..... 12th grade or higher
..... 8th to 11th grade
..... 7th grade or less

19. Do you think your parents:
..... wanted you to finish high school
..... didn't care if you did or did not finish high school
..... did not believe that school would help you

20. In your school work, did your parents:
..... encourage you
..... discourage you

21. Did you live with:
..... both your mother and father
..... either your mother or father
..... neither

22. About how many people are there in your town?
..... 20,000 or more
..... 5,000-19,000
..... 500-4,999
..... 20-499
..... less than 20

23. How far from your home was your school located?
..... 1-5 miles
..... 6-15 miles
..... 16 or more miles

24. Did you work outside of school?
..... yes
..... no

25. How many brothers and sisters do you have?
..... none
..... 1, 2 or 3
..... 4 or more

26. Did you feel tired?
..... never
..... seldom
..... often
..... very often

27. Did you have any trouble with the other students or teachers?
..... never
..... seldom
..... often
..... very often

28. Have you ever been sick?
..... never
..... seldom
..... often
..... very often

29. Were the teachers fair to you?
..... very often
..... often
..... seldom
..... never

30. Was it important to you that you graduate from high school?
..... yes
..... no

31. Did you think that you would be able to graduate from high school?
..... yes
..... probably
..... doubtful
..... no

32. Did you do your homework?

..... very often
..... often
..... seldom
..... never

33. Did you belong to any organization such as 4-H, Boy Scouts, church groups?

..... none
..... 1-4
..... 5 or more

34. Have you ever completed a project or participated in activities in any of these groups?

..... yes
..... no

The Statements listed below are those with which some people agree and others disagree. Please indicate the amount of your agreement or disagreement with the statement by placing an X on the scale following the statement.

35. A man can earn more by working four years than by going to high school.

Strong Disagreement	Moderate Disagreement	Slight Disagreement	Slight Agreement	Moderate Agreement	Strong Agreement

36. Most young people are getting too much education.

Strong Disagreement	Moderate Disagreement	Slight Disagreement	Slight Agreement	Moderate Agreement	Strong Agreement

37. Our schools encourage an individual to think for himself.

Strong Disagreement	Moderate Disagreement	Slight Disagreement	Slight Agreement	Moderate Agreement	Strong Agreement

38. High school courses are too impractical.

Strong Disagreement	Moderate Disagreement	Slight Disagreement	Slight Agreement	Moderate Agreement	Strong Agreement